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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,681	07/26/2001	Marien De Schipper	NL 000441	7598

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EXAMINER

RUDE, TIMOTHY L

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 10/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,681

Applicant(s)

DE SCHIPPER, MARIEN

Examiner

Timothy L Rude

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims

1. Claims 1-5 are amended.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker USPAT 5,977,535 in view of Umemoto et al (Umemoto) 6,196,692 B1.

2. As to claim 1, Rostoker discloses in Figure 16A (col. 13, lines 29-48) an image-sensing display device comprising: an image display part including an LCD display panel, 1630 (Applicant's image display panel), and lighting means, 1660, for illuminating the display panel, and

an image-sensing part arranged on top of the display panel, the image sensing part including a two-dimensional array of photosensitive elements, 1620.

Rostoker discloses alternate embodiments but does not explicitly disclose a reflective display panel wherein the lighting means are front-lighting means which are

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arranged in front of the array of photosensitive elements on top of the reflective display panel.

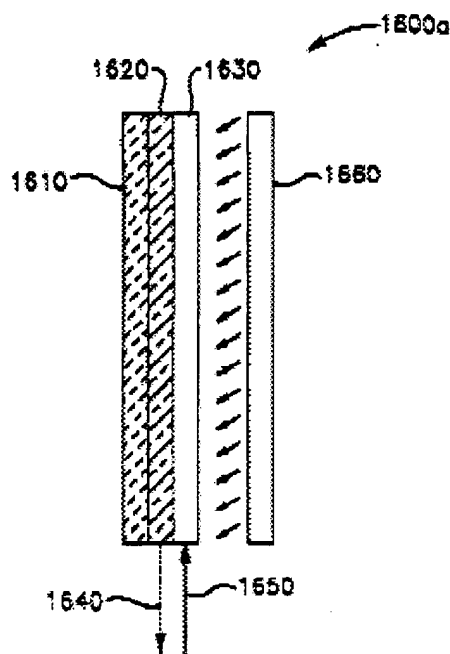


Figure 16A

Umemoto teaches the use of a reflective display panel with front-lighting means which are arranged in front of the display assembly and on top of the reflective display panel to provide a display that is bright, easy to view, and reduced in power consumption (col. 13, lines 23-32), wherein the light is used when viewing the display (Applicant's only during a display mode of the image-sensing display device) and the components form a single assembly (Figures 6 and 7) (Applicant's wherein the photosensitive elements of the image-sensing part and the reflective display panel and front-lighting means of the image display part are integrated in one module). Please

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note that making integral or making separable are considered obvious expedients, not generally patentable.

Umemoto is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add a reflective display with front-lighting means to provide a display that is bright, easy to view, and reduced in power consumption.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of Rostoker with the front-lighting means of Umemoto to provide a display that is bright, easy to view, and reduced in power consumption.

As to claim 2, Rostoker in view of Umemoto discloses a reflective display panel of claim 1, wherein the reflective display panel further comprises an optic element or lens element, 1610 in Figures 16A-16D and 108/106 in Figure 1 (Applicant's transparent front plate), and further wherein the array of photosensitive elements is arranged under the transparent front plate (Applicant's on an underside of the transparent front plate of the reflective display panel).

As to claim 3, Rostoker in view of Umemoto discloses a reflective display panel wherein Rostoker Figures 16A-16D the image-sensing display panel as claimed in claim 1, wherein the reflective display panel further comprises a transparent front plate, left

surface of 1630, and further wherein the array of photosensitive elements, 1620, is arranged on the top surface of the transparent front plate of the display panel.

As to claim 4, Umemoto discloses in Figure 7 a front-lighting means further comprise a light conductive plate, 1 (Applicant's front light guide), wherein the front light guide includes lens means integrated in the light guide. Motivation to combine is the same as for claim 1.

As to claim 5, Rostoker in view of Umemoto discloses a reflective display panel wherein Rostoker Figure 16C the image-sensing display device wherein the reflective display panel includes lens means, 1610, arranged on the front plate of the display panel, 1630. Rostoker discloses in Figure 1 an image-sensing display panel wherein the display panel further comprises a transparent front plate, 106, with an array of lenses 108, and further wherein the array of photosensitive elements, 102, is arranged on the underside of the transparent front plate, 106.

As to claim 6, Rostoker discloses the image-sensing display device further wherein the array of photosensitive elements includes a CCD sensor (col. 5, lines 13-16).

As to claim 7, the mere selection of a C-MOS image sensor for the array of photosensitive elements is considered a species of the claimed invention, not patentably distinct, unless unexpected results are obtained.

As to claim 8, Rostoker discloses the image-sensing display device further wherein the display panel includes an LCD panel (col. 13, lines 33-36).

As to claim 9, the mere selection of a cholesteric liquid crystal material for the LCD panel is considered a species of the claimed invention, not patentably distinct, unless unexpected results are obtained.

As to claim 10, the mere selection of a twisted nematic liquid crystal material for the LCD panel is considered a species of the claimed invention, not patentably distinct, unless unexpected results are obtained.

As to claims 11 and 12, Rostoker discloses his invention may be used to comprise a video phone (col. 3, lines 47-49) which would comprise: an image communication apparatus comprising image display means, the image display means including an image display panel, and camera means, the camera means including an image sensor, wherein the image display panel and the image sensor comprise an image-sensing display device as claimed in claim 1.

As to claim 13, constructing a videophone apparatus as claimed in claim 12 as a mobile apparatus is considered an obvious expedient of a videophone, not patentably distinct. For convenience, Applicant may view an example of a mobile videophone in Figure 8 and on page 48 of Skow, European Patent Application publication 0 385 128 A2, provided by Applicant in IDS paper #7.

Response to Arguments

3. Applicant's arguments filed on 12 June 2003 have been fully considered but they are not persuasive.

Applicant's ONLY arguments are as follows:

- (1) Even when combined, the references do not teach the claimed subject matter.
- (2) Prior art teaches away in that Rostoker is transmissive and back-lighted.
- (3) The references are not properly combinable if the intended function is destroyed.
- (4) Examiners combination arises solely from hindsight.

Examiner's responses to Applicant's ONLY arguments are as follows:

- (1) It is respectfully pointed out that Rostoker discloses an image sensing display device comprising an LCD display, and Umemoto teaches the reason,

suggestion, and motivation to modify the device of Rostoker to further comprise a reflective display with front light guide, per rejections above.

(2) It is respectfully pointed out that Rostoker discloses an image sensing display device comprising an LCD display, and Umemoto teaches the reason, suggestion, and motivation to modify the device of Rostoker to further comprise a reflective display with front light guide, per rejections above, thereby eliminating the transmissive and back-lighted structure of Rostoker.

(3) It is respectfully pointed out that Rostoker discloses an image sensing display device comprising an LCD display, and Umemoto teaches the reason, suggestion, and motivation to modify the device of Rostoker to further comprise a reflective display with front light guide, per rejections above, thereby eliminating the transmissive and back-lighted structure of Rostoker which would result in an operable structure per Applicant's enabling disclosure.

(4) It is respectfully pointed out that Umemoto teaches the reason, suggestion, and motivation to modify the device of Rostoker to further comprise a reflective display with front light guide, per rejections above. Additionally, the reasons, suggestions, and motivations to develop reflective and front-lighted displays, as taught in part by Umemoto, are long-standing in the art of liquid crystals. The general modification of a transmissive display device, with or without an image-sensing part, to be reflective and front-lighted is obvious and not patentable per rejections above. However, an inventive solution of some design challenge to achieve superior performance or more cost

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effective manufacture of a reflective and front-lighted display device, with or without an image-sensing part, might be patentable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L Rude whose telephone number is (703) 305-0418. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



TLR
October 14, 2003

Timothy L Rude
Examiner
Art Unit 2871



TOANTON
PRIMARY EXAMINER